

LITERATURE WATCH

ASICS

The hard facts about soft cores. The use of soft cores—predefined and preverified technology-independent logic blocks—simplifies and speeds chip design. Jim Lipman, *EDN*, 9/2/96, p. 38, 8 pp.

AUDIO/VIDEO

Graphics controller ICs in transition. Unified Memory Architecture is prominent in some recent graphics chip designs, just as plummeting memory prices threaten it with obsolescence. Rodney Myrvaagnes, *Electronic Products*, 8/96, p. 63, 4 pp.

A designer's guide to PC audio circuits. Extracting the highest fidelity from PC audio circuits requires careful choice and placement of audio playback components, particularly the codec and amplifiers. Maury Wood, Larry Hurst, *Analog Devices*; *Computer Design*, 8/96, p. 97, 2 pp.

BUSES

Serial buses blaze ahead of parallel solutions. Four serial interfaces—Fiber Channel, SSA, 1394 (FireWire), and USB—are simultaneously emerging as potential mainstream technologies. While many of the capabilities and application areas of these interfaces overlap, each offers unique characteristics. Jeff Child, *Computer Design*, 8/96, p. 51, 8 pp.

PCI burrows into other buses.

The speed with which the PCI bus has moved into the embedded community has surprised almost everyone. *EDN*, 8/15/96, p. 45, 5 pp.

PCI poised to slowly dominate as standard bus for data acq. Most major suppliers in the data-acquisition arena expect to introduce PCI products in the next six months to a year. Paul G. Schreier, *Personal Engineering*, 8/96, p. 31, 6 pp.

DEVELOPMENT TOOLS

386EX simulators aid hardware debugging through CPU bus analysis. Vendors of 386EX emulators have added detailed bus-monitoring functions to help developers debug ChipPC designs. Russ Lindgren, *Personal Engineering*, 8/96, p. 26, 5 pp.

Taking the mystery out of formal methods. To reduce cycle time and increase quality in single-chip systems, you'll have to make room in your toolbox for formal verifiers. Barbara Tuck, *Computer Design*, 8/96, p. 67, 6 pp.

Programmable logic and synthesis strive to get in sync. Synthesis tools written for ASICs haven't been very efficient but are improving. Mike Donlin, *Computer Design*, 8/96, p. 77, 4 pp.

MEMORY**SRAM vendors seek new markets as prices swoon.**

Memory makers covet communications customers as profitability eludes the PC-cache segment. Robert Ristelhueber, *Electronic Business Today*, 8/96, p. 61, 3 pp.

MISCELLANEOUS

BIST: pie in the sky no longer. New EDA tools make built-in self-test (BIST) easier to add to new designs. Dan Strassberg, *EDN*, 9/2/96, p. 77, 6 pp.

Workstation vendors brace for Pentium Pro whirlwind. Storms are brewing around Windows NT, Pentium Pro, PowerPC, and Sun's UPA bus. Maury Wright, *EDN*, 9/2/96, p. 59, 7 pp.

Nintendo vs. the CD-ROMs. On the eve of launching its new video-game console, Nintendo exemplifies how an OEM can buck the crowd and still launch a winning platform. James K. Willcox, *OEM Magazine*, 8/96, p. 22, 10 pp.

Triumph of showmanship. The story behind the creation of the network computer and the information appliance is a media and marketing circus that features billionaire-size egos, eloquent marketers, and, just maybe, a few good ideas. Richard L. Brandt, *Upside*, 9/96, p. 72, 9 pp.

ADSL stalks the Internet.

Asymmetric Digital Subscriber Line is making a comeback as a killer technology for Internet access, but don't expect it to strike in a big way before 1998. Barry Phillips, *OEM Magazine*, 8/96, p. 44, 6 pp.

PERIPHERALS

Fast Ethernet, ATM designers grapple for the desktop. First reports from the field give the advantage to Fast Ethernet. Users emphasize cost and compatibility over performance. John H. Mayer, *Computer Design*, 8/96, p. 39, 5 pp.

PROCESSORS

32-bit SPARClet challenges Moto QUICC processors. The TSC701—Temic Semiconductors' SPARClet—is a 32-bit SPARC RISC with its own HDLC communications processor and peripherals. Ray Weiss, *Computer Design*, 8/96, p. 104, 1 pg.

Microchip packs 8-bitter into 8-pin PDIP/SOIC. Based on the PIC 16/17 architecture, Microchip's PIC-12C50x sells for less than \$1.00. Ray Weiss, *Computer Design*, 8/96, p. 110, 1 pg.

RISC microcontrollers draw a bead on consumer applications. RISC microcontroller shipments are approaching those of 32-bit CISC MCUs. John H. Mayer, *Computer Design*, 8/96, p. 113, 6 pp.